**Amendments to the Claims:**

Please amend claims 1 and 20 as follows. Following is a complete listing of the claims pending in the application, as amended:

1. (Amended) A device for controlling a coin discriminator, comprising:

at least one processor coupled to receive and monitor coin signals at each of two or more frequencies, wherein the coin signals include signals representing size and composition of a passing coin; and

at least one amplifier coupled to the at least one processor, wherein the at least one amplifier automatically provides at least one control signal to control a quiescent voltage level of the coin signals, over at least one range of operating temperatures, by controlling amplitudes and frequencies of the coin signals.

2. (Original) The device of claim 1, wherein the coin signals include at least one low frequency signal set and at least one high frequency signal set received from at least one measurement circuit, wherein the at least one low frequency and high frequency signal sets include coin signature measurement signals representing at least one physical characteristic of a coin.

3. (Original) The device of claim 2, wherein the at least one control signal controls a frequency and an amplitude of at least one oscillator.

4. (Original) The device of claim 1, wherein the at least one control signal includes at least one oscillator frequency control signal and at least one oscillator signal amplitude control signal.

5. (Original) The device of claim 1, wherein the at least one processor detects an out-of-range operating point voltage level of at least one oscillator and automatically adjusts a control voltage of a compensating varactor in response to the measurement.

6. (Original) The device of claim 1, wherein the at least one processor detects an out-of-range operating point level of a sine wave amplitude of at least one oscillator and automatically adjusts a feedback voltage of the at least one oscillator in response.

7. (Original) The device of claim 1, wherein the coin signals are monitored at approximately 200 millisecond intervals.

8. (Original) The device of claim 1, wherein the quiescent voltage level of the coin signals is maintained at approximately 4.5 volts direct current (DC).

9. (Original) The device of claim 1, wherein the two or more frequencies include a low frequency of approximately 200 kHz and a high frequency of approximately 2MHz.

10. (Withdrawn) A method for controlling a phase-locked loop (PLL) system, comprising:

providing a coin counting sensor inductor coil, wherein the coin counting sensor inductor coil forms a first component of an oscillator of at least one PLL;

measuring two or more signals based on the coin counting sensor inductor coil;

automatically controlling at least one operating point of the at least one PLL using a second component of the oscillator in response to the measurement; and

automatically adjusting an amplitude of the oscillator in response to the measurement.

11. (Withdrawn) The method of claim 10, wherein measuring two or more signals comprises measuring two or more coin signature signals at each of two or more frequencies, wherein measuring two or more coin signature signals includes:

measuring a change in a control voltage of a voltage controlled oscillator (VCO); and

measuring a change in an amplitude of an oscillating signal of the coin counting sensor inductor coil.

12. (Withdrawn) The method of claim 10, wherein measuring two or more signals comprises:

measuring at least one low frequency signal representative of coin size upon sensing passage of a coin;

measuring at least one high frequency signal representative of coin size upon sensing passage of a coin;

measuring at least one low frequency signal representative of coin composition upon sensing passage of a coin; and

measuring at least one high frequency signal representative of coin composition upon sensing passage of a coin.

13. (Withdrawn) The method of claim 10, further comprising driving the oscillator using at least one comparator, wherein an output of the at least one comparator provides a positive feedback drive for the oscillator, wherein a complement of the output of the comparator provides hysteresis at an inverting input of the at least one comparator to reduce jitter of the output.

14. (Withdrawn) The method of claim 10, wherein automatically controlling at least one operating point comprises:

adjusting a capacitance of the second component of the oscillator using at least one control voltage; and

maintaining at least one constant frequency of oscillation in the oscillator over at least one range of operating temperatures in response to the adjusted capacitance, wherein the at least one range of operating temperatures includes a range from approximately –5 degrees Celsius through +50 degrees Celsius.

15. (Withdrawn) The method of claim 14, wherein the at least one constant frequency of oscillation is selected from among frequencies of approximately 200 kHz and 2MHz.

16. (Withdrawn) The method of claim 10, wherein the second component of the oscillator comprises at least one varactor.

17. (Withdrawn) The method of claim 10, wherein automatically adjusting an amplitude of the oscillator comprises adjusting a feedback voltage to the first component of an oscillator.

18. (Withdrawn) The method of claim 10, further comprising automatically initializing the PLL system, wherein initializing includes:

initializing a control voltage of a voltage controlled oscillator (VCO); and

initializing an amplitude of an oscillating signal of the coin counting sensor inductor coil.

19. (Withdrawn) A method for increasing a dynamic sensing range of a coin sensor, comprising:

sensing passage of at least one coin using at least one oscillating electromagnetic field including at least one low frequency component and at least one high frequency component;

generating at least one low frequency signal representative of coin size and at least one low frequency signal representative of coin composition using the at least one low frequency component in response to sensing passage;

generating at least one high frequency signal representative of coin size and at least one high frequency signal representative of coin composition using the at least one high frequency component in response to sensing passage; and

controlling a quiescent voltage level of each of the at least one low frequency signals representative of coin size and coin composition and each of the at least one high frequency signals representative of coin size and coin composition over at least one range of temperatures.

20. (Amended) A method for adjusting a coin discrimination system, comprising:

receiving at least one coin signature measurement signal, wherein the coin signature measurement signal represents at least one physical characteristic of a coin; and

automatically adjusting a quiescent state of the at least one coin signature measurement signal, by adjusting an amplitude and a frequency of the measurement signal, to maintain at least one baseline value at a constant level over an operating temperature range.

21. (Withdrawn) A method for controlling oscillators of a coin discrimination system, comprising:

measuring two or more coin signature signals at each of two or more frequencies;

detecting an out-of-range operating point voltage level of at least one oscillator and automatically adjusting a control voltage of a compensating voltage controlled capacitive element in response to the measurement; and

detecting an out-of-range operating point level of a sine wave amplitude of the at least one oscillator and automatically adjusting a feedback voltage of the at least one oscillator in response to the measurement, wherein stable

quiescent output signal levels of the two or more coin signature signals are automatically established and maintained over an operating temperature range.

22. (Withdrawn) A system for controlling a coin discriminator, comprising:

at least one phase-locked loop (PLL) including at least one frequency control circuit and at least one amplitude control circuit; and

adaptive operating point (AOP) circuitry coupled to automatically control a frequency and amplitude of oscillator signals of the at least one PLL over at least one range of operating temperatures by automatically controlling a quiescent voltage level of a set of signals received from the at least one PLL, wherein the set of signals includes at least one low frequency signal and at least one high frequency signal representative of coin size received from the at least one frequency control circuit, and at least one low frequency signal and at least one high frequency signal representative of coin composition received from the at least one amplitude control circuit.

23. (Withdrawn) A system for controlling a coin discriminator, comprising:

at least one oscillator coupled to at least one coin sensor transducer including two or more inductive windings;

at least one measurement circuit coupled to receive signals including at least one low frequency signal and at least one high frequency signal from the at least one oscillator, wherein the signals include coin signature measurement signals representing at least one physical characteristic of a coin; and

at least one control circuit coupled among the at least one measurement circuit and the at least one oscillator, wherein the at least one control circuit is configured to automatically control a frequency and an amplitude of the at least one oscillator over at least one range of operating temperatures by automatically controlling a quiescent voltage level of the signals.

24. (Withdrawn) The system of claim 23, further comprising at least one comparator coupled to drive the at least one oscillator, wherein an output of the at least one comparator provides a positive feedback drive for the oscillator, wherein a complement of the output of the comparator provides hysteresis at an inverting input of the at least one comparator to reduce jitter of the output.

25. (Withdrawn) The system of claim 23, wherein the at least one low frequency signal set includes at least one low frequency signal representative of coin size and at least one low frequency signal representative of coin composition, wherein the at least one high frequency signal set includes at least one high frequency signal representative of coin size and at least one high frequency signal representative of coin composition.

26. (Withdrawn) The system of claim 23, wherein the at least one measurement circuit comprises frequency measurement circuitry and amplitude measurement circuitry.

27. (Withdrawn) A coin counting system, comprising:

a coin receiving device;

a coin path coupled to move coins from the coin receiving device; and

a coin sensing system coupled to receive coins from the coin path, wherein the coin sensing system discriminates between coins and non-coin objects and between denominations of coins, wherein the coin sensing system comprises,

at least one processor coupled to receive and monitor coin signals at each of two or more frequencies, wherein the coin signals include signals representing size and composition of a passing coin; and

at least one amplifier coupled to the at least one processor, wherein the at least one amplifier automatically provides at least one control signal to control a quiescent voltage level of the coin signals over at least one range of operating temperatures.

28. (Withdrawn) A coin counting device, comprising:

at least one oscillator coupled to at least one coin sensor, wherein coin signals are generated including signals representing coin size and coin composition upon sensing a passing coin;

at least one comparator coupled to drive the at least one oscillator, wherein an output of the at least one comparator provides a positive feedback drive for the oscillator, wherein a complement of the output of the comparator provides hysteresis at an inverting input of the at least one comparator to reduce jitter of the output; and

at least one processor coupled to receive and monitor the coin signals from the coin sensor, wherein the at least one processor automatically provides at least one control signal to control a quiescent voltage level of the coin signals over at least one range of operating temperatures.

29. (Withdrawn) A computer readable medium including executable instructions which, when executed in a processing system, control oscillators of a coin discrimination system by:

measuring two or more coin signature signals at each of two or more frequencies;

detecting an out-of-range operating point voltage level of at least one oscillator and automatically adjusting a control voltage of at least one compensating voltage controlled oscillator element in response to the measurement; and

detecting an out-of-range operating point level of a sine wave amplitude of the at least one oscillator and automatically adjusting a feedback voltage of the at least one oscillator in response to the measurement, wherein stable quiescent output signal levels of the two or more coin signature signals are automatically established and maintained over an operating temperature range.

30. (Withdrawn) A system for discriminating among coins, comprising:

means for sensing passage of coins using at least one oscillating electromagnetic field including at least one low frequency component and at least one high frequency component;

means for generating at least one low frequency signal representative of coin size and at least one low frequency signal representative of coin composition using the at least one low frequency component in response to sensing passage;

means for generating at least one high frequency signal representative of coin size and at least one high frequency signal representative of coin composition using the at least one high frequency component in response to sensing passage; and

means for automatically controlling a frequency and an amplitude of the at least one oscillating electromagnetic field over at least one range of operating temperatures by automatically controlling a quiescent voltage level of the at least one low frequency signal representative of coin size, the at least one low frequency signal representative of coin composition, the at least one high frequency signal representative of coin size, and the at least one high frequency signal representative of coin composition.